POLISH END-POINT DETECTING METHOD FOR WAFER AND CHEMICAL-MECHANICAL POLISHING DEVICE USED FOR THE SAME

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Abstract:
PROBLEM TO BE SOLVED: To provide a method for detecting the end-point of CMP(chemical-mechanical polishing), which uses an index representing more precise conditions for the polish surface of a polished wafer. SOLUTION: This method includes the steps of using a color discrimination sensor, wherein a light is projected from a light source and its reflection light is condensed into an optical fiber for recognizing the color component of light, the color component of a traced material on a wafer to be polished is recognized by a color discrimination sensor in digital value in advance, on-state is displayed when that color component is recognized, while off-state is displayed when that is not recognized, a point on the surface of a rotating wafer (except for a center point) is irradiated with a light from the color discrimination sensor, for detecting a digital value of wafer's position coordinate and color component, and a time when a detected value (m) and a position (x, y) match with a digital value (n) of reference color component representing an optimum wafer polish end-point which is recorded in advance and a wafer position (x, y) value is taken as wafer's polish end-point. COPYRIGHT: (C)2000,JPO